

DERWENT-ACC-NO: 1990-034505

DERWENT-WEEK: 199005

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TITLE: Conductive paste - comprises
inorganic particles and
conductive particles dispersed in
vehicle where inorganic
particles have surface acting to
metallic ions

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PRIORITY-DATA: 1988JP-0145018 (June 13, 1988)

PATENT-FAMILY:

PUB-NO	PAGES	PUB-DATE	MAIN-IPC
JP 01313804 A		December 19, 1989	N/A
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APPLICATION-DATA:

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ABSTRACTED-PUB-NO: JP 01313804A

BASIC-ABSTRACT:

Conductive paste of conductive particles and inorganic particles are dispersed in a vehicle, where the inorganic particles comprise particles having an active surface to the metallic ions of a non-electrolytic plating bath.

Typically alumina particles (1.0 micron ave dia.) are dipped in a first

activation soln. (1000 ml water, 2 g SnCl₂ 4 ml HCl) and second activation soln. in order to form inorganic particles of which the surface is activated to metallic ions of the non-electrolytic plating bath. A conductive paste is prepd. by mixing 100 pts.wt. Ni particles (3 microns ave particle dia.), 10 pts.wt. Al₂O₃ particles, 16 pts.wt. ethyl cellulose, and 4 pts.wt. butyl carbitol for 4 hrs., mulling for 1 hr.. An outside electrode is formed by coating the paste on both terminals of a ceramic capacitor chip at 50 microns thickness forming a Ni plated film on it, a 3 micron thick soldering film, and then 500 of the chips are soldered on a print circuit substrate and then tensile load is applied. No exfoliation is found below 5 kg of tensile load.

ADVANTAGE - The paste controls shrinkage of the paste and substrate. Bonding between the paste and the substrate is good, so that solderability is improved.

TITLE-TERMS: CONDUCTING PASTE COMPRISE INORGANIC PARTICLE
CONDUCTING PARTICLE
DISPERSE VEHICLE INORGANIC PARTICLE SURFACE ACT
METALLIC ION

ADDL-INDEXING-TERMS:
CAPACITOR ELECTRODE

DERWENT-CLASS: L03 M13 V01 V02 X11 X12

CPI-CODES: L03-A01A3; M13-B;

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